



King's Research Portal

Document Version
Peer reviewed version

[Link to publication record in King's Research Portal](#)

Citation for published version (APA):

Farnum, R. L., Hawkins, S., & Tamarin, M. (2017). Hydro-hegemony and International Water Law. In *Routledge Handbook of Water Law and Policy* (pp. 297-310). London: Routledge.

Citing this paper

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

General rights

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

Take down policy

If you believe that this document breaches copyright please contact librarypure@kcl.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

22. Hydro-Hegemons and International Water Law

Rebecca L. Farnum, Stephanie Hawkins and Mia Tamarin

Abstract

The modern international legal regime governing nation-states is intrinsically tied to power. Power analyses thus play a major role in understanding international law and its impacts on water access and distribution. Building on theories of hydro-hegemony (power relationships in transboundary water interactions), this chapter examines the relationship between hydro-hegemons, freshwater, and law. Examples from river basins and aquifers around the world help analyse the (counter-)hegemonic potential of both the content and structure of international law governing freshwater. Particular attention is given to the debate over whether international law might help 'level the playing field' in transboundary water interactions.

Introduction: Power and International Law

A chapter about power and hegemony may seem out of place in a law and policy handbook. The law is, after all, supposed to be free from politics, blind to its supplicants, an equal arbiter of justice. However, while certain mechanisms within legal frameworks strive to be apolitical, it cannot be ignored that the systems creating and upholding those frameworks are far from apolitical themselves. It is people who write and enforce law; it is states that produce and implement international law. International law is thus a product of society, influenced by power and politics.

In his opening to *The Politics of International Law*, Christian Reus-Smit (2004, 3) demonstrates the social construction of international law, showing how states and other actors use politics to determine “not only ‘who gets what when and how’, but also who will be accepted as a legitimate actor and what will pass as rightful conduct”. International relations occur “within a framework of rules and norms” (ibid), but those very rules and norms are the product of states’ behaviours and wishes. In a system created by its own users, politics and power cannot be divorced from the product or its application. Analysis of those politics and the way power plays out on the global stage is thus an integral part of understanding international law. This chapter relies on three related assumptions about the relationship between power and law in order to examine the more specific connections between hydro-hegemons, freshwater, and international water law:

1. The political processes that create international law are shaped in large part by power relations between states;
2. Legal norms and institutions often serve to reinforce existing power dynamics;

3. Legal norms and institutions can be leveraged for or against extant hegemonic orders.

International relations are inherently political, shaped by domestic pressures, representatives' rapport, and global events. While international relations and international law are frequently separated as fields of study, they are inextricably bound, with relations creating law and law informing relations (Reus-Smit 2014). While all states are, in principal, equal, there exist "firsts among equals" in global politics. The five permanent seats on the United Nations (UN) Security Council are a prime example. The Security Council is one of the few international institutions that can produce legally binding resolutions, yet only permanent members wield veto power, giving those states more power over the production of international law. This power imbalance reflects political processes and directly impacts international law's content, scope, and applicability.

Ideally, "law is the protector of the weak" (Frederick Schiller). Too often, though, it seems that "[t]he function of the law is not to provide justice or to preserve freedom. The function of the law is to keep those who hold power, in power" (Spence 1996, 90). The international legal system has come a long way since the 1648 Treaty of Westphalia and 1945 founding of the United Nations, but the world system is still technically anarchic. Under the Westphalian model of social organisation, states have theoretical sovereignty over their territories and there is no greater power than the nation-state. A citizen of a country is bound to that country's laws whether she wishes or not. In contrast, states are not answerable to a force higher than themselves: the collective international community of states. International law emanating from treaties and rulings from the International Court of Justice (ICJ) are applicable and enforceable only with states' voluntary compliance (see Crawford 2012). This requirement of consent is a core principle of international law. As this chapter demonstrates, principles of sovereignty and consent embody formal equality in the face of considerable inequality. The political nature of international legal creation, along with the system's imperial origins, gives rise to international legal norms and systems that generally benefit and reflect the worldview and values of the powerful. International law thus becomes another avenue through which powerful actors wield their influence – and acquire more.

The fact that law is created through political processes dominated by powerful players does not seem to bode well for the ability of international law to rein in domineering states or protect weaker states from bullying hegemons. However, the international legal requirements of notification and environmental impact assessment for major projects, the ways in which activists make claims based on legal rights to campaign for vulnerable populations, and the growing power of the ICJ despite its potential to limit state sovereignty all suggest that the law can be used as a tool in counter-hegemonic efforts.

This chapter builds from these ideas to explore how the Framework of Hydro-Hegemony intersects with international law. Particular attention is given to geographical context; the principles of equitable and reasonable use, no

significant harm, and sovereignty; the fragmentation of international law; and procedural matters. The chapter will conclude by comparing lessons from across the given examples and identifying weaknesses in international water law and hydro-hegemony that this analysis reveals.

Power Analysis, International Relations, and Freshwater: The Framework of Hydro-Hegemony

Hegemony is a concept from politics and international relations referring to leadership and rule. A hegemon is an actor or group of actors with authority in their sphere. The famous theorist of hegemony, Antonio Gramsci, argued that Mussolini's Fascist regime in Italy was upheld not only through the state's brute force but also through cultural institutions, with the ruling class maintaining power through the reproduction of "common sense" ideas. "Hegemony" goes beyond domination (leadership built on brute force) to become leadership upheld through authority and consent.

Hydro-hegemony refers to hegemony at the river basin level, wherein one state, or a bloc of states, has more control over water flows and usage than other riparians. The Framework of Hydro-Hegemony (FHH) was developed in order to understand "who gets how much water, how and why" (Zeitoun and Warner 2006, 435). The FHH is rooted in international relations literature on power analysis, hegemony theories and security studies. Much of that literature assumes a simplistic dualism of conflict and cooperation leading to either absolute control or equal co-management. In contrast, hydro-hegemony theorists argue that the outcomes of transboundary water distribution result from varying configurations of complex political interplays between interested actors. To analyse the nuances of these interplays, the FHH adapts Lukes' (1974) theory of power.

Building from Lukes, political and social scientists suggest three 'faces' of how power is operationalised: material, bargaining, and ideational. The most obvious of these forms is material power, the capacity of an actor to tangibly achieve their interests through physical or economic force. States with greater abilities to extract or divert water from a basin and the military capability to destroy unwanted infrastructure on the river have more material power.

The second dimension, bargaining power, revolves around the ability to control the "rules of the game" (Zeitoun and Warner 2006, 442), influencing the agenda and what is and is not on the negotiating table. The chairperson of a River Basin Organisation (RBO) wields bargaining power as she determines what will and will not be discussed during a meeting. Without recognition from the chairperson, a state may not be able to bring proposals to the RBO for consideration, much less implementation.

The third dimension of power is the most difficult to concretely grasp, and also probably the most difficult to counteract. Through ideational power, hegemons influence ideas and assumptions – not merely their own, but also other actors'. The third dimension is the capacity to create, uphold, and destroy narratives,

perceptions, and knowledge. The core organisation of the world by nation-states is a hegemonic concept backed up by ideational power. That states should be the primary actors governing transboundary basins is ‘common sense’ in the current global order. The ideational power of the state system is demonstrated by how few people actively consider or work towards alternatives.

The last two dimensions of power – bargaining and ideational – are sometimes referred to as “soft power” (see Nye 2004). In contrast, the first, material face is often called “hard power”. Both soft and hard powers play a role in determining water distribution outcomes and reinforcing or countering hydro-hegemony within basins.

Power is seen in the FHH as the “prime determinant enabling the successful execution of the water resource control” (Zeitoun and Warner 2006, 451). To illustrate the significance of differing kinds of power and analyse where and how power is held and employed within river basin relations, the FHH suggests four ‘pillars’ of power useful in evaluating how states exert influence over shared waters (**Figure 1**). In addition to Lukes’ (1974) three faces of power, the FHH includes geography (the position of a state in relation to a watercourse) as an influential force in hydropolitics. The relationship between international law and these four pillars will now be explored.

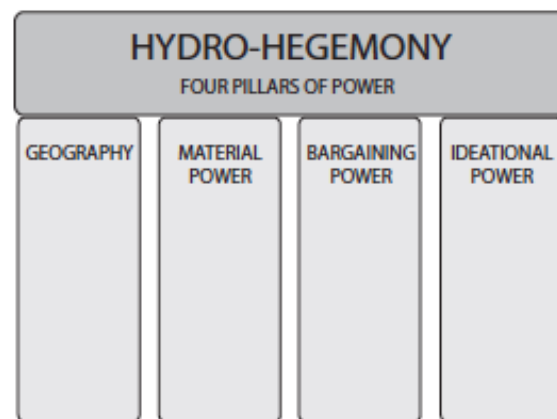


Figure 1. The Revised Pillars of Hydro-Hegemony
(Cascão & Zeitoun 2010, 32)

International Law as Soft Power and a Tool of (Counter-)Hegemony

Hydro-hegemony and international law are powerfully connected, with law frequently used as a tool to both reproduce and resist hydro-hegemonic realities. Hydro-hegemony has greater levels of authority and influence to ensure that processes and outcomes of water distribution manifest in their favour. These hydro-hegemony exist, to some degree, in virtually every transboundary water relationship. It is no surprise that stronger players “win the game” more frequently. Weaker players in transboundary water relations are typically constrained in their actions by the hydro-hegemony’s interest, as hegemony wield their power through a variety of compliance-producing mechanisms (“carrots”) and authoritarian strategies (“sticks”). Even so, non-hydro-hegemony riparian

states hold the potential to push against both the carrots and sticks. Cascão's (2008) work on "counter-hegemony" explores how non-hegemonic states might resist hegemonic control. Various studies and theorisations suggest that soft forms of power are particularly useful tools for non-hegemons (Zeitoun *et al* 2011; Cascão and Zeitoun 2010). It is primarily through this emphasis on soft power that issues of international law clearly come into questions of hydro-hegemony.

The ability to create, write, and influence international law straddles bargaining and ideational powers. As a repository and creator of ideas, international law is a tool and actor in ideational power; as a repository of international "rules", it is a tool and actor in bargaining power. This power is held and utilised by academics and lawyers via the drafting of articles; activists, corporations, and civil society leaders in their campaigns; and states themselves through their participation in treaty making and in organisation such as the United Nations. Appeals to international law, including claims about either the "rightness" or "wrongness" of a riparian's actions, are a component of bargaining power. A study of 165 territorial disputes since 1945 found that actors with strong legal claims were more than twice as likely to seek negotiations before using force (Huth *et al* 2011). This suggests a different kind of "battle" using bargaining power in "lawfare" in addition to (or instead of) material power in warfare (Kennedy 2012).

International law reflects and reproduces global discourses on issues, influencing domestic and foreign policy. It shapes and perpetuates norms of behaviour. As such, international law wields significant soft power – and thus influences hydro-hegemonic relations – even when it does not carry with it a strong global police force with hard power (Daoudy 2008). It can be argued, however, that there is also a material element to the intersection between international law and hydro-hegemony: the unequal capacity of states to employ lawyers. The ambiguity of much of international law leaves room for "duelling experts" to determine the winner of a legal dispute over international waters. In such cases, countries with greater fiscal resources and legal capacity are likely to triumph.

Soft power is far from the only issue in hydro-hegemony, and those with the soundest legal arguments will not always prevail over an otherwise dominating power. However, international law is a significant source of soft power, and soft power is relevant to hydro-hegemonic relations and analyses. The next sections consider how some of the core principles and procedures of international law are being leveraged both by hydro-hegemons to further consolidate their position and by non-hydro-hegemons to counter the *status quo*.

Geographical Context and its Influence on Hydro-Hegemony

The original FHH included three pillars, with all three faces of power in one pillar, and "Riparian Position" and "Exploitation Potential" receiving dedicated attention in the others. In the revised conceptualisation (**Figure 1**), power is nuanced as each face gets its own pillar and "Geography" gets the fourth.

Geographical factors are also considered in international water law: Article 6 of the 1997 United Nations Convention on the Law of the Non-navigational Uses of International Watercourses (UN Watercourses Convention 1997), for example, includes explicit attention to “[g]eographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character”, when weighing up the factors that States might take into account in determining what constitutes an equitable and reasonable use of an international watercourse. This section examines the influence of geographical considerations, most obviously riparian position for river basins and exploitation potential for aquifers, on hydro-hegemonic relations. As will be demonstrated, geography creates an important context for the way in which states draw upon the principles of international water law.

Geography and River Basins

The geographical factor most pertinent to hydro-hegemony in river basins is riparian position, whether a state is upstream or downstream of its neighbours sharing the river. Upstream states can theoretically use all of the water from what would otherwise be a shared resource. In the 1890s, Mexico complained of United States (US) practices wastefully diverting water from the The Rio Grande to the detriment of downstream users. At the time, the US Attorney General asserted *absolute* territorial sovereignty (the Harmon Doctrine), claiming the US had no obligation under international law to restrict the use of territorial waters.

Today, international water law has evolved such that the principles of equitable and reasonable utilisation (ERU) and no significant harm (NSH) signify *limited* territorial sovereignty. Through this theory of riparian rights, states may use water from a common source provided their use does not unreasonably interfere with other riparian states’ uses. Limited territorial sovereignty could be said to be a counter-hegemonic tool for downstream riparians like Mexico, allowing them to counter the upstream hydro-hegemon’s claims to absolute sovereignty.

However, not all hydro-hegemons are upstream. In the Ganges-Brahmaputra-Meghna River Basin, India is the clear hydro-hegemon even as Nepal is the uppermost riparian. Nepal and Bhutan share water but not a border, with India cutting between them. This significantly limits negotiation potential between the two weaker parties. This also emphasises the need for careful consideration of legal language: “shared river”/ “transboundary river” and “transboundary”/ “transgovernmental” are not necessarily synonymous pairs in all basins, and can affect the applicable scope of legal rules. For example, the language “transboundary” frames international problems as occurring only at the border, undermining the regional issues inherent in the use of international watercourses, as well as the “genuinely global dimension of local ecosystem health” (Conca 2006, 16). The language “shared”, on the other hand, can be interpreted as requiring allocation of volumes of water, and indeed the recent bilateral Agreement between Jordan and Saudi Arabia relating to the Management and Utilisation of the Groundwaters in the Al-Sag/ Al-Disi Layer (2015) - that neglects to allocate water volumes - avoids this language in favour of the term “joint”. The language that denotes the geographical scope of

international legal frameworks is intrinsically linked to power, since it prescribes who is included in, and excluded from, international negotiations over freshwater.

The case of the Ganges-Brahmaputra-Meghna River Basin provides an example of the consequences of such geographical framing, as well as demonstrating that the ideas of ERU and NSH (See “**Equitable and Reasonable Use, No Significant Harm, and Sovereignty**” below), so useful for some non-hegemons, can be used by a hydro-hegemon to further cement its position. In the water-sharing Ganges Treaty (1996) between India and Bangladesh, claims to “do no harm” and “reasonable use” are made, but disingenuously so, in ways that do not truly limit India’s hydro-hegemonic potential (Hanasz 2014). Nepal, the upstream riparian, is not included in the agreement. This emphasises that geographic context is an element rather than a determining factor in hydro-hegemony.

Geography and Aquifers

The original FHH was developed to analyse power relations between states at the basin level, with the river as the primary unit of water under consideration. As a consequence of being ‘out of sight, therefore out of mind’, groundwater and aquifers has been largely ignored in hydro-hegemony theory, and has only recently gained more explicit attention in international legal instruments. For example, the International Law Commission’s (ILC) Draft Articles on the Law of Transboundary Aquifers (Draft Aquifer Articles 2008) only recently brought aquifers explicitly into the international legal framework for freshwater. This instrument also includes the ERU and NSH principles with attention to “natural characteristics”.

Geographic issues are arguably, though not necessarily characteristically, different between surface and groundwater. The FHH’s focus on surface water and riparian position has led to an underappreciation of issues pertinent to aquifers. This chapter does not go into depth about the hydrogeological and legal differences between surface water and groundwater. Nor does it explore whether there are significantly different hegemony considerations for surface water and groundwater, since the water contained in both carry similar distributive concerns. Instead, it argues that the original FHH’s “Exploitation Potential” pillar can be read into the “Geography” and “Material Power” elements of the revised framework; from this angle, hydro-hegemony specific to groundwater and aquifers can be considered.

Geographical factors like the depth of the water table, direction of flow, location of recharge and discharge zones, and amount of territory a state has over an aquifer influence the ease and cost of abstraction. The extent of this control by a state is then determined by the economic and technical capacity.

This relationship between geological ease of abstraction and technical-financial capacity is a two-way street, as pumping can alter flow directions and speeds, altering ease of abstraction in other places. Given this and the fact that flow

dynamics can take different speeds and direction through various aquifer layers, state relationships over aquifers quickly become complicated.

As international law over aquifers is still emerging and the subject of much debate, regional agreements are particularly important in current considerations of the relationship between geography, aquifers, hydro-hegemony, and international law.

In the case of the Ceylanpınar (*Ra's al 'Ayn* in Arabic) Aquifer shared between Turkey and Syria, over-exploitation by increased use and unlicensed wells in both countries has led to increased water deficits and reduced flows to the Khabour River (Öztan and Axelrod 2011). However, as the recharge zone lies predominantly in Turkey, Turkey has more control over the aquifer's management for continued use. As the majority of the aquifer lies under Turkish territory, Turkey also has more exploitation opportunities than Syria. This uneven geographical situation and the countries' disparate economic power mean that exploitation potential is critically unequal.

Another example includes the Disi Aquifer shared by Jordan and Saudi Arabia. The aquifer has low permeability and negligible recharge, with its finite resources leading to a silent pumping race between the two states (Ferragina and Greco 2008). The recent Disi Aquifer Agreement (2015) restricts exploitation only in the relatively small buffer zone at the international border. Since Saudi Arabia has a significantly larger portion of the aquifer under its territory, Saudi Arabia's current exploitation is relatively unaffected, and the practical implications of the treaty are far from equitable.

A considerable proportion (around 94%) of the groundwater exploitation happening within the Guarani Aquifer System is taking place within Brazil, the clear regional hegemon in Latin America (for more on this issue, see the Guarani Aquifer Strategic Action Programme 2009). With the principle of sovereignty underpinning the Guarani Aquifer Agreement (2010), the regional treaty maintains and promotes the hydro-hegemonic *status quo*.

In the case studies above, inequalities created largely by geographic factors demonstrate how legal rules focused on contextual situations can further or help mitigate hegemonic relationships. Geography and the hard power of technical and economic capacity thus remain relevant in hydro-hegemonic analysis and the practical implications of international water law. The next section will explore how these and other factors play out in states' use of soft power through a more detailed consideration of the principles of ERU, NSH, and sovereignty.

Equitable and Reasonable Use, No Significant Harm, and Sovereignty: (Counter-)Hydro-Hegemonic Bargaining Tools

The duty to ensure ERU and NSH when utilising a watercourse are the primary principles of international water law. They are now legally binding on state signatories to the UN Watercourses Convention (1997) and form the bedrock of

multiple bi- and multi-lateral agreements. However, the ways in which these principles are used and interpreted varies widely across states.

The principle of ERU acts as the legal entitlement of riparian rights with NSH as the regulatory check, though there has been historical disagreement between states over their interaction and which should be prioritised (Wouters 1999). The two are generally seen as conflicting, with states emphasising one and understating the other according to their preferences. A lower riparian state would supposedly favour the principle of NSH to protect against the use from upstream states. Upper riparian users are likely to favour the principle of ERU, which provides more scope to make use of water without consideration for downstream users (Salman 2007).

ERU in the UN Watercourses Convention (1997, Article 5) and the ILC Draft Aquifer Articles (2008, Article 4) requires that states use and develop a watercourse taking into account all watercourse states concerned. Article 6 of the UN Watercourses Convention (1997) and Article 5 of the ILC Draft Aquifer Articles (2008) both list a series of factors to be taken into account in determining ERU, including social, economic, cultural and historical considerations. However, this list of factors is flexible. Just as states stress NSH or ERU in accordance with their preferences, they emphasise those ERU factors most helpful to their agendas. As a result, claims tend to balance each other out legally, with an absence of legal hierarchy over factors leading to maintenance of the *status quo* (Lankford 2013).

The Nile River Basin is a particularly interesting case study for hydro-hegemony and international law. Egypt has historically been the hydro-hegemon, with a great deal of control over the waters of the Nile despite its downstream position. By emphasising the extant uses, dependent population, and socioeconomic needs factors of ERU, Egypt leverages international water law to legitimise its continued role as receiving the lion's share of the Nile's waters. Upstream states, on the other hand, can make claims to the principle of ERU's focus on natural factors and potential uses in their arguments. The equivocality of ERU thus allows for its use as a tool of both hydro-hegemony and counter-hydro-hegemony.

In addition to the *use* of these principles, involvement in their *formation* illustrates how states seek to use international water law to further their positions – and ensure other states do not gain additional bargaining power.

For example, in comments preceding the General Assembly's adoption of the ILC Draft Aquifer Articles (2008), Brazil pushed for the NSH principle to be interpreted as an obligation of "conduct" and not one of "result" (ILC 2008, 30), further advocating that the obligation to prevent, reduce and control pollution should not result in "undue hardship" on origin states disproportionate to the benefits of potentially harmed states (ILC 2008, 37). Similarly, Turkey appealed to weaken the obligation of NSH by suggesting that the phrase "shall try" replace "shall take all appropriate measures" (ILC 2008, 32). Portugal, a non-hydro-hegemon, expressed concern over the lack of a definition for "significant harm"

and argued that there is “danger in leaving such subjective terms to be interpreted by States on a case-by-case basis, in accordance with their own interests of the moment. In fact, it may create an unjustified disadvantage to weaker States” (ILC 2008, 21).

Sovereignty is a central international legal principle, but one that has a complex place in international water law. While the principles of ERU and NSH have effectively restricted sovereignty as a legitimate justification of unrestricted water utilisation, the ILC Draft Aquifer Articles (2008) actually emphasise the sovereignty of aquifer states. In the context of aquifer utilisation, sovereignty is now part of the ‘toolbox’ of bargaining power that states can use in their hydro-hegemonic and counter-hydro-hegemonic efforts (more on this divergence around the sovereignty principle is discussed in the next section).

Sovereignty as sustained in Article 3 of the ILC Draft Aquifer Articles (2008) can be used to lessen states’ responsibilities toward their neighbours and has been advocated for by various hydro-hegemons, including Turkey (ILC 2008, 22). Brazil expressed its support for the inclusion of sovereignty as “fundamental” (ILC 2008, 22), claiming the need “to maintain such a balance and avoid excessive restrictions to legitimate activities” (ILC 2008, 8). Non-hegemons might try to leverage the sovereignty principle for counter-hydro-hegemonic action by using it to prevent interference from other states’ aquifer utilisation. However, such use could inadvertently support unrestricted resource rights, creating a claim-counter-claim culture with no objective mediator. Such a system is vulnerable to the administrative advantage of hegemons with abundant resources.

The wording contained in framework treaties is important, since regional and bi-/multi-lateral agreements governing watercourses and aquifers ‘borrow’ from these overarching instruments. Yet, powerful actors can direct the emphasis given to certain principles over others during their creation. Such variations may be positive or negative from the perspective of equity. The Revised Protocol on Shared Watercourses in the Southern African Development Community (Revised SADC Protocol 2000), for example, draws upon the provisions of the UN Watercourses Convention (1997) in its preamble and includes ERU and NSH language very similar to the UN formulation – but adds explicit attention to poverty alleviation, sustainable development, and the needs of future generations. In contrast, the ILC Draft Aquifer Articles (2008) have been recognised as influential in the creation of the Guarani Aquifer Agreement (2010), and its emphasis on sovereignty could indicate hydro-hegemonic influence in its drafting and implementation.

States’ use of and engagement with the formation of these principles reveals the bargaining power inherent in international law. Turkey has a history of using international legal principles as soft power to increase its control over the transboundary waters; Iraq and Syria have likewise leveraged international water law principles in counter-hydro-hegemonic attempts to curb upstream control of the surface waters (Daoudy 2008). Similarly, states’ comments on the ILC Draft Aquifer Articles (2008) illustrate how power can be wielded through

the *wording* of provisions. Ambiguous and subjective terms are generally preferred by those states with the capacity to interpret them in their favour. More defined, narrow provisions are preferred by those with less power, demonstrating a possible reliance on the law to make up for their lack of influence in other spheres. Additionally, the very fact that hydro-hegemony like Brazil and Turkey are concerned with the wording of legal instruments at all, in spite of their dominant position, reveals concern over being held accountable by legal principles and the perceived legitimacy of their actions.

Hydro-Hegemony in other Fields of Law: The Fragmentation of International Law

Though the discussion above focused primarily on issues specific to international water law, many other areas of international law are relevant to hydro-hegemony. Global water governance frames water among other things as an environmental, economic, and human rights concern. Managing and using river basins and aquifers involves much more than the water itself; it also has implications for pollution, land rights, biodiversity, and wetlands, for example. International environmental law, international human rights law, and international economic law, among others, all govern various components of freshwater resources (Boisson de Chazournes 2013). The various regional agreements, domestic laws, and private sector regulation mechanisms also intersecting with shared waters further complicate matters. While the principle of *lex specialis* can help in determining which law takes precedence when there are both general and specific rules, norms over shared water have emerged in different fields of law holding equivalent specificity or generality. The structure of international law thus leads to legal fragmentation, making it unclear which rules are applicable when.

Legal fragmentation over transboundary river basins and aquifers has implications for hydro-hegemony. As demonstrated above, states divergently prioritise the principles of ERU, NSH, and sovereignty to further their own (counter) hydro-hegemonic agendas. The fragmentation of law provides an even larger set of tools from which states can pull.

Consider, for example, the Jordan River Basin. The region is characterised by relative water scarcity and vast inequalities between populations. Israel, Jordan, Lebanon, Syria, and the West Bank are all riparians, with Israel the clear hydro-hegemon, especially in regards to the occupied West Bank. Ongoing debate over the status and legality of Israel's occupation and activities in the West Bank includes disputes over the applicability of international humanitarian law and international human rights law, further fragmenting and undermining applicable international water law over the Jordan River Basin.

'Water rights' are an oft-used legal principle for counter-hydro-hegemonic action in the Jordan River Basin, with states, NGOs, and communities all making claims. Water rights, formulated in slightly different ways, are frequently applied in parallel legal provisions – including international water law, international human rights law, and international humanitarian law. The multiple emphases

on rights to water can be a boon for advocates and campaigners: in this case, they have a number of sources from which to pull arguments, potentially giving more weight to their claims. But in the legal realm, fragmentation often diminishes non-hegemons' chances for legal redress. With multiple mechanisms, jurisdiction may be passed between often contradictory arenas to such an extent that some legal claims essentially fall through the cracks and may legitimise legal breaches.

The advent of the law of transboundary aquifers arguably further fragments international law governing freshwater. Established international law over water, environmental, and biodiversity concerns has effectively eroded sovereignty in favour of attention to commonly held vital resources. Although the ILC Draft Aquifer Articles (2008) amount only to non-binding 'soft law', its reintroduction of sovereignty to certain transboundary water resources arguably adds legitimacy to interpretations of *absolute* sovereignty (see McCaffrey 2008). Thus, hydro-hegemons are potentially once again able to use that principle as a bargaining power tool, although limited territorial sovereignty remains an established customary principle of international law. Fragmentation, read in this light, seemingly becomes a handmaiden to hydro-hegemony, as contradictory rules make space for 'interest-based' interpretation, reflective of the indeterminate structure of law itself. Advocating for systematic interpretation, contextualising treaties with relevant external language and events, may help to counter this concern although the interpretation of those in power will tend to prevail.

While it is necessary for international legal frameworks to be flexible (after all, it is rare that 'one size fits all'), the fragmentation of law undermines its purported objectivity and certainty. Without careful attention to the potential resultant harms, international legal fragmentation will likely bolster hydro-hegemonic arrangements by providing yet more tools for hydro-hegemons to leverage in their water use.

Procedural Rules and (Counter-)Hydro-Hegemonic Action

Thus far, this chapter has primarily considered substantive rules of international water law. There are, however, a number of procedural obligations also relevant to shared waters and hydro-hegemonic relations. International water law explicitly obliges a duty of cooperation on states, including prior notification and consultation during the planning of projects likely to impact a watercourse. Information sharing and the precautionary principle are also prominent. The overlap and fragmentation of international law suggests that procedural obligations from international environmental law, such as the conducting of environmental impact assessments and the involvement of public participation in decision-making, may also be germane.

Procedural rules are used by both hegemonies and non-hegemonies to delegitimise and justify various actions. The Grand Ethiopian Renaissance Dam (GERD) in the Nile River Basin can be seen as a counter-hydro-hegemonic action by Ethiopia, a move against decades of hydro-hegemonic "bullying" from downstream riparian

Egypt. Egypt has claimed the vast majority of the Nile's water for decades, asserting historic rights based on 1929 and 1959 colonial treaties between Egypt and Sudan.

Ethiopia's announcement of the GERD was met with loud protests and even threats from Egypt, concerned about possible reductions to downstream flow. Egypt claimed that Ethiopia had acted unilaterally without providing sufficient prior notification and called for Ethiopia to halt to construction until adequate consultation and negotiations with riparians were satisfactorily concluded. Egypt, Ethiopia, and Sudan were locked in months of tensions. While an agreement has now been reached, Egypt's response to the GERD demonstrates how hydro-hegemony make use of procedural obligations to delegitimise actions threatening their favoured *status quo*.

Egypt's legal claims against the GERD included calls for a proper assessment of the project's impacts. Environmental impact assessments (EIAs) are one of the strongest procedural duties in international environmental law, regarded as a necessary component of due diligence against transboundary harm. EIAs are now standard – and generally required – for any major infrastructure development, including dams, pipelines, and pumps (see ICJ 2009 and 2010).

Transboundary EIAs are a powerful way to shed light on the harms of, and thus potentially push against, hydro-hegemony. The procedural EIA requirement creates a space for negative impacts like reduced downstream flow and aquifer pollution to be named and mitigation measures called for. Additionally, the conducting of an EIA is a more static, strict rule, difficult to interpret subjectively. There is thus less space for a hydro-hegemon to deny a breach of the EIA requirement.

There is, however, a great deal of space for EIAs and other procedural rules to be used politically as well as legally, in ways that may further hydro-hegemony rather than countering it. For example, Israel and Jordan recently signed an agreement for a major project to desalinate water from the Gulf of Aqaba and pipe some of it north to replenish the Dead Sea.

The Red Sea-Dead Sea Conveyance project was full of counter-hydro-hegemonic potential, and was certainly packaged that way to supporters at its beginning. An early proposal written jointly by Israel, Jordan, and the Palestinian Authority spoke of greater access to potable water for everyone and an economic and environmental avenue for cooperation. The World Bank administered a multi-million dollar fund from multiple donors to conduct a feasibility study (including an environmental and social impact assessment) that emphasised public participation a great deal in its design. In December 2013, Israel, Jordan, and Palestine signed a memorandum of understanding to build a conduit.

Yet, at the end of all this potentially counter-hydro-hegemonic work, an agreement was signed between Israel and Jordan – without the Palestinian Authority. Instead of being an equal part of an agreement, Palestine may be able to broker a separate agreement with Israel to buy additional water. Such a result

further Israel's hydro-hegemonic position over Palestine. This hydro-hegemonic outcome illustrates the limitations of procedural rules to guard against unjust results. Potentially worse, attention to procedural obligations (even if only lip service) may solidify future hydro-hegemonic possibilities by securing the consent of neighbouring riparians, which can in turn, limit future claims. Though the signed agreement deviates from the original plan, Israel can point to Palestine's participation in the process to delegitimise future protests.

The use of EIAs to further (counter-)hydro-hegemonic agendas also raises issues of the politicisation of science and information asymmetry. Water systems are complex, and the likely impacts of projects and utilisation debateable. A state will hire experts who will testify in ways that fit its agenda and focus on the scientific knowledge that most supports its aims. While a non-hegemon may leverage the precautionary principle to push against a major project initiated by a hydro-hegemon, that hydro-hegemon may use its material power to buy a great deal of expert knowledge able to produce an authoritative EIA discounting neighbours' concerns. Information asymmetry and the capacity of more powerful states like Israel to generate but withhold knowledge further challenge counter-hegemonic efforts.

Procedural rules have a great deal of counter-hydro-hegemonic potential and can be leveraged as an important part of weaker states' bargaining power. But it is important to recognise that the political nature of science and procedure means that these rules can just as easily be leveraged by hydro-hegemons to further cement their positions. Too, the very use of legal structures may reinforce the legitimacy held by hydro-hegemons, as will be addressed in the next and final section.

Conclusions

Understanding the interplay between international water law, power, and hydro-hegemony is vital to understanding water policy and outcomes on a global level. International water law, as well as other bodies of law, can be a source of bargaining power for states in transboundary water interactions. Legal principles, both substantive rules and procedural obligations, provide a set of norms to which states can refer in justifying or delegitimising actions. Given states' interest and involvement in the development of international law, it seems that even powerful states are concerned with issues of accountability, legitimacy, and the potential bargaining power provided by international law.

As a result, law can serve both as a tool for justice and oppression. The fragmentation and indeterminacy of law (see Miéville 2004) creates avenues for the exercise of soft power by states to develop legitimising "legal narratives" for their actions (Shehadeh 1996). Non-hegemons can leverage international law to strengthen their bargaining power; principles of international water law can help bolster counter-hydro-hegemonic advocacy campaigns. Yet, the reality of overarching hegemonic structures and extreme power asymmetries between states may limit the extent to which using law for counter-hydro-hegemony is effective: legally, as states with greater resources generally win the 'duel of

experts', and practically, as being in the legal right is no guarantee of success or protection.

Examining international water law and hydro-hegemony together reveals the weakness of their state-centred outlook. The imperial Westphalian system is the framework in place for global organisation, with the state the central actor. However, as the Red Sea-Dead Sea case study demonstrates, semi-state actors, indigenous peoples, local and municipal governments, donors, corporations, international and non-governmental organisations, individuals, and ecosystems are growing in prominence and have agency in shaping outcomes. Trends such as public participation and international human rights mechanisms show the evolution of international law in recognising these non-state actors, but states remain the key actors with legal personality. Hydro-hegemony theory, too, has been highly state-centric. States are the unit of analysis with virtually no attention to which citizens or groups within the state wield and benefit from the state's hegemony.

The world is changing, and state-centric analyses can limit understanding of broader influences. Decision-making that impacts transboundary waters occurs on all levels, not only the state level. In many places, local and municipal actions have greater impacts than national activities. Major development projects are nearly always backed by international organisations such as the Asian Development Bank or International Monetary Fund.

Hydro-hegemony theory must move beyond its realist assumptions of international relations theory if it is to be of continued use. Similarly, international water law must embrace developments and evolve if it is to continue being relevant. International law and hydro-hegemony scholarship and practice must incorporate both more micro- and macro-level actors. When individuals, corporations, and semi-states are not included in international legal frameworks and analysis, their place in maintaining, or being subject to, oppressive hydro-hegemonic arrangements remain unacknowledged and unaddressed.

In addition to emphasising the importance of non-state actors to international water law and hydro-hegemony, this chapter's consideration of aquifers as well as river basins reinforces the importance of understanding geographical context as well as economic, social, and political factors. Hydro-hegemony theory should accordingly develop a more nuanced appreciation of how riparian position and exploitation potential influence hydro-hegemonic outcomes, and of the material power differences that arise between various catchment types.

Lastly, but perhaps most importantly, using hydro-hegemony as a lens to study international water law reveals the structural ways in which international law serves to further hegemonic arrangements. There is a violent relation in law itself: *which laws apply, when, by whom, to what end?* (Kennedy 2012, 164). It is precisely these questions, applied to transboundary water distribution, that hydro-hegemony seeks to answer. The international legal system is political; subject to the same power relations that create hydro-hegemonic realities and

inequalities. Non-hegemons making use of international water law as a form of bargaining power in counter-hydro-hegemony must consider the unequal nature of that law, and the ways in which their use of it reinforces wider power dynamics, in their efforts.

References

- Agreement between the Government of the Heshemite Kingdom of Jordan and the Government of the Kingdom of Saudi Arabia for the Management and Utilization of the Ground Waters in the Al-Sag/ Al-Disi Layer, 30th April 2015 [Online] Available from http://www.internationalwaterlaw.org/documents/regionaldocs/Disi_Aquifer_Agreement-English2015.pdf [unofficial translation].
- Boisson de Chazournes, L. (2013) *Fresh Water in International Law*. Oxford: Oxford University Press.
- Cascão, A. (2008) Ethiopia-Challenges to Egyptian hegemony in the Nile basin. *Water Policy*, 10(2) 13–28.
- Cascão, A. and Zeitoun, M. (2010) Power, Hegemony and Critical Hydropolitics. In Earle, A., Jägerskog, A. and Ojendal, J. (eds.), *Transboundary Water Management: Principles and Practice*. London: Earthscan, 27-42.
- Conca, K. (2006) *Governing Water: Contentious Transnational Politics and Global Institution Building*. Cambridge: The MIT Press.
- Convention on the Law of the Non-navigational Uses of International Watercourses on the 21st May 1997, (entered into force 17th August 2014), *International Legal Materials*, 36 (1997) 700.
- Crawford, J. (2012) *Brownlie's Principles of Public International Law*, 8 edn. Oxford: Oxford University Press.
- Daoudy, M. (2008) Hydro-hegemony and international water law: laying claims to water rights. *Water Policy* 10, 89-102.
- Ferragina, E. and Greco, F. (2008) The Disi project: an internal/external analysis. *Water International* 33(4) 451-463.
- Guarani Aquifer Agreement, 2nd August 2010, [Online] available from http://www.internationalwaterlaw.org/documents/regionaldocs/Guarani_Aquifer_Agreement-English.pdf [unofficial translation].
- Guarani Aquifer System. (2009) Guarani Aquifer Strategic Action Programme' [Online] Available from [http:// iwlearn.net/iw-projects/974/reports/strategic-action-program/view](http://iwlearn.net/iw-projects/974/reports/strategic-action-program/view).

- Hanasz, P. (2014) Sharing waters vs. sharing rivers: The 1996 Ganges Treaty, *Global Water Forum*, [Online] Available from <http://www.globalwaterforum.org/2014/07/28/sharing-waters-vs-sharing-rivers-the-1996-ganges-treaty>.
- Huth, P.K., Croco, S.E., and Appel, B.J. (2011) Does International Law Promote the Peaceful Settlement of International Disputes? Evidence from the Study of Territorial Conflicts since 1945. *American Political Science Review* 105(2) 415-436.
- ICJ 13 July 2009, *Dispute regarding Navigational and Related Rights* (Costa Rica v. Nicaragua), [2009] ICJ Rep. 213.
- ICJ 20 April 2010, *Pulp Mills on the River Uruguay* (Argentina v. Uruguay), [2010] ICJ Rep. 14.
- ILC. (2008) Shared natural resources: comments and observations by Governments on the draft articles on the law of transboundary aquifers, *International Law Commission Sixtieth session*, UN Doc. A/CN.4/595.
- ILC Draft Articles on Transboundary Aquifers (2008), *Official Records of the General Assembly*, 63rd Session, Supp. No. 10, UN Doc. A/63/10.
- Kennedy, D. (2012) Lawfare and Warfare. In Crawford, J. and Koskenniemi, M. (eds.), *Cambridge Companion to International Law*, Cambridge: Cambridge University Press.
- Lankford, B. (2013) Does Article 6 (Factors Relevant to Equitable and Reasonable Utilization) in the UN Watercourses Convention misdirect riparian countries?, *Water International*, 38(2) 130-145.
- Lukes, S. (1974) *Power: a radical view*. London: Macmillan.
- McCaffrey, S.C. (2008) Comments on the International Law Commission's Draft Articles on the Law of Transboundary Aquifers 2006, *Social Science Research Network*.
- Miéville, C. (2004) The Commodity-Form theory of International Law: an introduction, *Leiden Journal of International Law*, 17(2) 271-302.
- Nye, J.S. (2004) *Soft power: the means to success in world politics*. New York: Public Affairs.
- Öztan, M. and Axelrod, M. (2011) Sustainable transboundary groundwater management under shifting political scenarios: the Ceylanpınar Aquifer and Turkey–Syria relations. *Water International*, 36(5) 671-685.
- Reus-Smith, C. (2004) The politics of international law. In Reus-Smith, C. (ed.), *The Politics of International Law*. Cambridge: Cambridge University Press.

- Revised Southern African Development Community Protocol on Shared Watercourses, 7th August 2000 (entered into force on 22nd September 2003), *International Legal Materials*, 40 (2001), 321.
- Salman, S.M.A. (2007) The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law, *International Journal of Water Resources Development*, 23(4) 625-640.
- Shehadeh, R. (1996) The Weight of Legal History: Constraints and Hopes in the Search for a Sovereign Legal Language. In Cotran, E. and Mallat, C. (eds.), *The Arab-Israeli Accords: Legal Perspectives*. Boston: Kluwer Law International.
- Spence, G. (1996) *From freedom to slavery: the rebirth of tyranny in America*. New York, St. Martin's Press.
- Treaty Between The Government Of The People's Republic Of Bangladesh And The Government Of The Republic Of India On Sharing Of The Ganges/Ganges Waters At Farakka, (entered into force 12th December 1996), *International Legal Materials*, 36 (1996) 519.
- Wouters, P. (1999) The Legal Response to International Water Scarcity and Water Conflicts: The UN Watercourses Convention and Beyond. *German Yearbook of International Law* 42, 293.
- Zeitoun, M., Mirumachi, N. and Warner, J. (2011) Transboundary water interaction II: the influence of 'soft' power. *International Environmental Agreements: Politics, Law and Economics*, 11(2) 159–178.
- Zeitoun, M. and Warner, J. (2006) Hydro-hegemony – a framework for analysis of trans-boundary water conflicts, *Water Policy*, 8(5) 435-460.